



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

RBT18561
Job Sheet 176532



005281

Part No: RBT18561

Job Qty: 1 ea

Part Name: Bell 407 Field Maintenance



Part Weight: 0 lbs

Status: Scheduled

Priority: High

Job Created: 4/25/18

Job Tracking No:

Due Date: 7/3/18

Created By: Logan David

Type: SOLD

Description:

Note: DWG RBT18561 Rev3 (TEO17-640) IPP Rev A 17.12.11 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		7/3/18	0.00	0.00	Start Up Small Fab-4		MLL
110	Small Fab	1 pcs		7/3/18	0.00	1.00	Small Fab-9		MLL DAS
120	QC	1 pcs		7/3/18	0.00	0.00	QC4		38
130	Packaging	1 pcs		7/3/18	0.00	0.00	Packaging3		9-89
140	QC21-FG	1 Ea		7/3/18	0.00	0.00	QC21		AUG 3 1 2018

Part Op 110 - 1-Engrave placard RB41011 using marktronic engraver 2-Transfer drill Dart placard RB41011 into Pelican case
Descriptions: APP-1700-E 3-Deburr holes and remove chips from case. 4-Rivet Dart placard to Pelican case 5-Install placard to wheel housing as per DWG 6-Glue foam to case and pack case

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
3896T31	Ferule 1/16 X 3/8" - Aluminum	2 Ea (2 ea)	90-Start up Operation	16493
97524A032	Sealing Blind Rivet	4 Ea (4 ea)	90-Start up Operation	5024748
APP-1700-E	Hard Case	1 Ea (1 ea)	90-Start up Operation	5006770
CL-2-C	Lanyard Wire	1 ft (1 ea)	90-Start up Operation	5044387
RB H4713	Drain Hose 74	1 Ea (1 ea)	90-Start up Operation	5026878
RB H4749	Drain Hose 74	1 Ea (1 ea)	90-Start up Operation	5074999
RB23006782	Adapter, Torque Turbine Attach Lower Nut	1 Ea (1 ea)	90-Start up Operation	5079052
RB23006783 CA	Adapter, Torque Turbine Attach Upper Nut	1 Ea (1 ea)	90-Start up Operation	5090209
RB23007615 E	Power Turbine Support Cleaning C-30 & C-47	1 Ea (1 ea)	90-Start up Operation	5045929
RB23007638 E	Fuel Injector Wrench	1 Ea (1 ea)	90-Start up Operation	5028357
RB41011	Dart Tooling Placard, Aluminum	1 Ea (1 ea)	90-Start up Operation	5028352
RBBP1425-101	Input Drive Shaft Tool (K-Flex) (see Rob. info)	1 Ea (1 ea)	90-Start up Operation	5021040
RBE2-10-1 141	Fuel System Cartridge Removal Tool	1 Ea (1 ea)	90-Start up Operation	5053633



Work Order update only

Work Order: _____		DISPOSITION		DEPARTMENT/PROCESS	
Part No. _____		 Container No: S090318 Part: RBT18561 Job No: 176532 Serial No/Batch: S090318 Revision: 3 Inspector: _____ Exp Date: _____ Instructions: _____ Date: 07/10/18		Water Jet ☐ Engineering ☐ Prod. Eng. Coord. ☐ Quality ☐ Rec/Store/Packaging ☐ Other ☐ Supplier ☐	
NCR No. _____				MRB (QSI042) Approval	
Date : _____				Completed By	
Description of Work Order Defect				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	

Root Cause			FAULT CATEGORY								
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐								
Misidentified	☐	Past Due	☐	OTHER :							

RBT112800 144 Power Take Off Seal Installation Tool

RBT18025-13 144 Linear Scale (50 lbs)

RBT18034 59 Main Rotor Pitch Link Protectors

RBT18538 64 Pilot, Co-Pilot Seat Brace

RBT18560 145 Engine Gearbox Seal Puller

RBT18561-11 Needle Nozzle Grease Gun

RBT18561-13 Relay Base Removal

RBT18561-15 Extract Tool - Blue

RBT18561-17 Extract Tool - Red

RBT18561-19 Extract Tool - Green

RBT18561-21 Extract Tool - Terminal Block

RBT18561-23 Extract Tool - Terminal Block

RBT18561-25 Relay Removal

RBT18561-27 Posi-Drive Bits-MR Beanie

RBT18561-29 Extraction Tool

RBT18561-31 10X Magna-Lite

RBT18561-35 Offset 5/16 Torque Adapter

RBT18561-37 Offset 3/8 Torque Adapter

RBT18561-39 Offset 1/2 Torque Adapter

RBT18561-41 Offset 9/16 Torque Adapter

RBT18561-45 A/C Belt Tensioner

RBT18561-49 Tygon Hose

RBT18561-7 Crowfoot

RBT18561-75 Bottom Foam (3 x 13-3/4 x 36, Ethafoam 220, Black)

RBT18561-77 Top Shelf Foam (2-1/16 x 13-3/4 x 35-1/2, Ethafoam 220, Black)

RBT18561-79 Stiffener (0.236 x 13-3/4 x 35-1/2, Coroplast, Black)

RBT18561-81 60 Contents & Location Placard

RBT18561-89 77 Storage Box

RBT18561-9 85 Insert Tool-Whelen Connectors

RBT18582 145 Tail Rotor Gear Box Torque Adapter

RBT40021 874 407 Trim Tab Bender (407-215-001-101) E

RBT400214 Trim Tab Bending Gauge

RBT400325 136 Socket Tail Boom Nut

RBW109-3101-58-1-1 Hammer, Steel 102

RBW109-3101-58-2-1 Hammer, Aluminum 102

1 Ea (1 ea) 90-Start up Operation

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Eugene 5028631

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5089084

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>				Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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Date :	Step #:	QTY Effective :		MRB (QSI042) Approval																	
Description Work Order Deviation			Disposition																		
			Completed By																		
			Lead hand / Supervisor Approval Verification																		
			QC / QA Coordinator Approval																		
Root Cause		FAULT CATEGORY																			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐																
OTHER :																					

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	3896T31	2	644	0
	97524A032	4	643	0
	APP-1700-E	1	16	0
	CL-2-C	1	300	0
	RB H4713	1	1	0
	RB H4749	1	9	0
	RB23006782	1	0	0
	RB23006783	1	2	0
	RB23007615	1	0	0
	RB23007638	1	0	0
	RB41011	1	841	0
	RBBP1425-101	1	0	0
	RBE2-10-1	1	5	0
	RBT112800	1	5	0
	RBT18025-13	1	16	0
	RBT18034	1	7	0
	RBT18538	1	5	0
	RBT18560	1	5	0
	RBT18561-11	2	20	0
	RBT18561-13	1	10	0
	RBT18561-15	2	22	0
	RBT18561-17	2	22	0
	RBT18561-19	2	22	0
	RBT18561-21	1	11	0
	RBT18561-23	1	11	0
	RBT18561-25	1	11	0
	RBT18561-27	2	10	0
	RBT18561-29	1	10	0
	RBT18561-31	1	8	0
	RBT18561-35	1	9	0
	RBT18561-37	1	11	0
	RBT18561-39	1	11	0
	RBT18561-41	1	11	0
	RBT18561-45	1	11	0
	RBT18561-49	1	23	0
	RBT18561-7	1	11	0
	RBT18561-75	1	9	0
	RBT18561-77	1	9	0
	RBT18561-79	1	9	0
	RBT18561-81	1	6	0
	RBT18561-89	1	11	0
	RBT18561-9	1	12	0
	RBT18582	1	14	0
	RBT400213	1	0	0
	RBT400214	1	0	0
	RBT400325	1	5	0
	RBW109-3101-58-1-1	1	5	0
	RBW109-3101-58-2-1	1	5	0

Part Specifications

Specifications could not be found.

DQA: _____ Date: _____



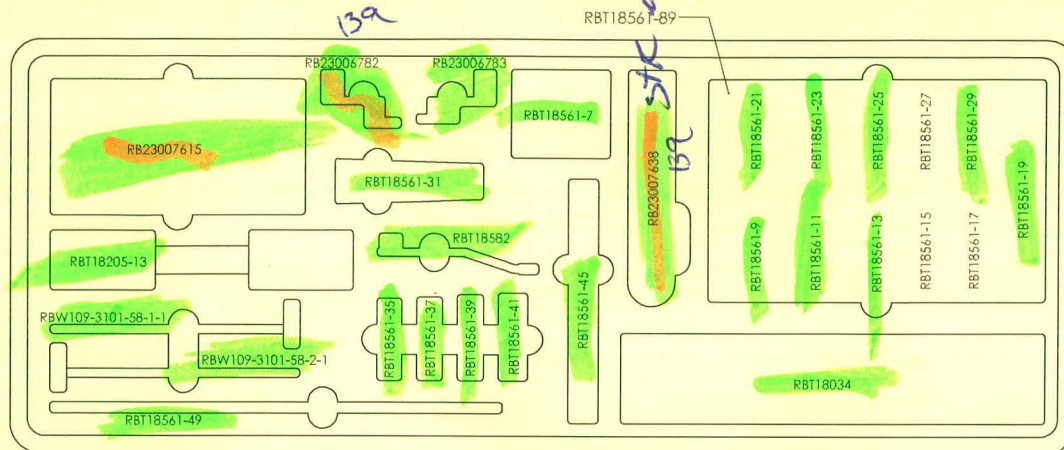
WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

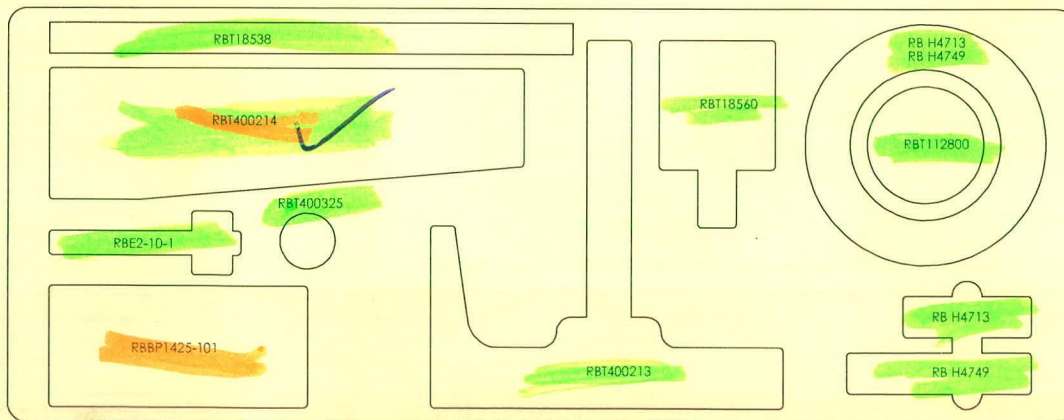
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

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TOP SHELF



BOTTOM CUSHION

TOOL LAYOUT

REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
A		CORRECTED -11 B/O F/N FROM 6Y900 TO GY900.	1/14/2013	RJC
1		CHD -75 TOOL LAYOUT, ADDED NEW DESIGN FOR DRAIN HOSES & CUTOUTS FOR INDIVIDUAL QUILES (RB H4713, RB H4749), MOVED RBT112800, CHD SQUEEZE BOTTLE DEPTHS FROM 2.65 TO 2.35 & 3.43 TO 3.08.	1/14/2013	RJC
1A		-7 CHD BOM INFO WAS 1/2 DRIVE IS 3/8 DRIVE. -13 NUMBER WAS M6106/32-002 IS M6106/32-001.	3/6/2013	BM
1B		CORRECTED T/N ON BOTTOM TOOL LAYOUT WAS RBT400235 IS RBT400325.	1/21/2014	RJC
2	16-0139	-75 & -77 CHD MATERIAL & SUPPLIER WAS Y20 BLACK, I.R. SPECIALTY IS ETHAFOAM 220, BLACK, CASE SOLUTIONS. -75 DELETED RBT18561-59 & RBT18561-61 FROM KIT AND CHD TOOL LAYOUT. CHD DIM WAS 4X R.64 & 3X .55 X 45°. -77 ADDED CUTOUTS FOR RBW109-3101-58-1, RBW109-3101-58-2 AND RBT18034, DELETED -33 AND ADDED -34 AND CHD CUTOUT FOR NEW SCALE. -79 CHD DIM WAS 28.44 IS 35.50, ADDED BLACK TO COPOLYMER MATERIAL CALLOUT. -81 UPDATED WITH NEW 5 AND DELETED TOOLS, CHD PAPER WAS WHITE IS PED.	9/2/2016	RJC
3	16-0251	CORRECTED DWG. TITLE WAS FIELD TOOL KIT IS 407 FIELD MAINTENANCE KIT. CORRECTED T/N WAS RBW109-3101-58-1 IS RBW109-3101-58-1-1, WAS RBW109-3101-58-2 IS RBW109-3101-58-2-1, -31 ADDED B/O INFO (MCMASTER-CARR #9483113). -75 -77 -79 -81 CHD DIM'S, TO SHEET METAL TOLERANCE. -75 -77 ADDED DIM 4X R.64. -81 CORRECTED T/N WAS RBW109-3101-58-1 IS RBW109-3101-58-1-1, WAS RBW109-3101-58-2 IS RBW109-3101-58-2-1.	12/5/2016	RJC

TEO ATTACHED

DART AEROSPACE	
TITLE 407 FIELD MAINTENANCE KIT	
DWG NO. RBT18561	REV 3
MAT'L _____ TREAT _____ FINISH _____ SPEC _____ DRAWN BY: CLOUGH CHECKED: DUERFELDT OPS APPR: ANDERSON QA APPR: LINDSAY APPROVED: MACKOVJAK SCALE: 1:4	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES .XXX ± .005 FRACTIONS ± 1/8 .XX ± .01 ANGLES ± 5° .X ± .1 SURFACES ± 125° 1. BREAK ALL SHARP EDGES .015 X 45° OR .015R 2. DIMENSIONAL LIMITS APPLY AFTER PLATING 3. INTERPRET DIM AND TOL PER ASME Y14.5M-2009	
USED ON MODEL BELL 407 DATE 12/28/2011 SHEET 1 OF 6	

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
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